





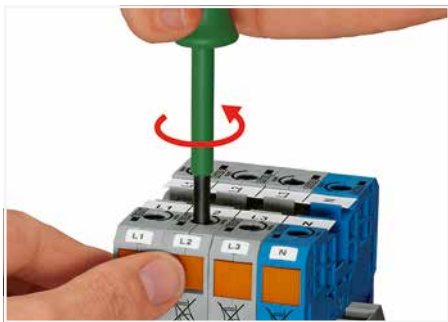
WAGO High-Current Rail-Mount Terminal Blocks

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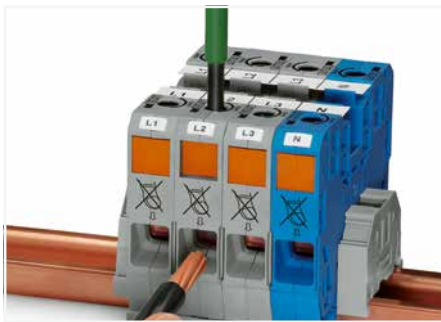
High-Current Rail-Mount Terminal Blocks; 35 mm²

285 Series

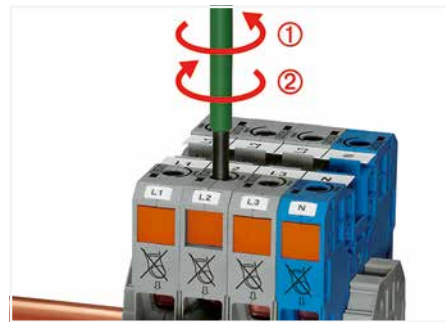
Description and Installation



Conductor termination – step 1:
Rotate the operating tool (5.5 mm blade width) counter-clockwise. Next, push in the orange locking tab. The clamp is locked open for hands-free wiring.



Conductor termination – step 2:
Insert a stripped conductor into the clamping unit until it hits backstop. Hold in this position.



Conductor termination – step 3:
A short counter-clockwise rotation closes the clamp, securing the conductor ①. When unlocked, allow operating tool to rotate clockwise ② to securely terminate the conductor.

5



The power tap is inserted into the jumper contact slot. It can be fitted with a strain relief plate.



Testing
Voltage measurements can be performed (e.g., via 2-pole 206-707 Voltage Tester).



Testing with test plug adapter (283-404).



High-current rail-mount terminal blocks, 35 mm² (2 AWG) and 50 mm² (2/0 AWG)



POWER CAGE CLAMP
terminates the following
copper conductors:
solid "s"



stranded "st"



fine-stranded,
also with tinned
single strands



Commoning adjacent terminal blocks using a centrally positioned push-in jumper.



Slide the marking strip laterally to remove the jumper.



Commoning 35 mm² (2 AWG) POWER CAGE CLAMP Terminal Blocks with 10/16 mm² (8/6 AWG) 2010 and 2016 Series Terminal Blocks TOPJOB® S using step-down jumpers (not valid for 2016-76xx and 2016-77xx).



Step-down jumpers common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drop can be a problem. A large conductor can be easily connected to smaller conductors at the distribution point.

Step-down jumpers are simply pushed down for full insertion, similar to adjacent jumpers. Commoning may be made in either direction using the special thin end plate to cover the open side. Additional through terminal blocks having a smaller cross-section may be commoned using adjacent jumpers.

In this case, pay attention that:
The total current of the outgoing circuits does not exceed the nominal current of the step-down jumper.



Side-entry wiring means that even larger conductors, which have limited flexibility, can be easily connected.



WMB markers or self-adhesive, printable marking strips can be accommodated on 35, 50 and 95 mm² high-current terminal blocks.



Marker carrier (285-442) for marking strip (2009-110) or 2 x WMB markers

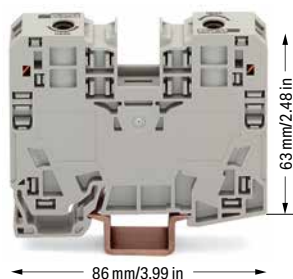


fine-stranded,
with ferrule
(gastight crimped)

High-Current Through Terminal Block, High-Current Ground Conductor Terminal Block 35 mm²; 285 Series

Technical Data

6 ... 35 mm ²	8 ... 2 AWG
1000 V / 8 kV / 3 ①	600 V, 115 A ②
I _N 125 A	600 V, 115 A ③
Terminal block width: 16 mm / 0.63 inch	
25 mm / 0.98 inch	



Technical Data

0.2 ... 6 mm ²	24 ... 10 AWG
800 V / 8 kV / 3 ②	600 V, 30 A ③
I _N 32 A	600 V, 32 A ③
Module width: 8 mm / 0.315 inch	
12 ... 13 mm / 0.47 ... 0.51 inch	



2-conductor through terminal block; only for DIN 35 x 15 rail

Color	Item No.	Pack. Unit
gray	285-135	15
blue	285-134	15
light gray ③	285-935 ③	15
dark gray/yellow	285-131	15

2-conductor ground terminal block; only suitable for DIN 35 x 15 rail; 2.3 mm thick; copper

green-yellow	285-137	15
green-yellow ③	285-137/999-950 ③	15

Accessories; item-specific

Adjacent jumper; insulated; I_N 85 A

gray	285-435	50 (25)
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Step-down jumper; insulated; I_N 90 A

gray	285-430	50 (25)
------	---------	---------

Protective warning marker; with a black high-voltage symbol

yellow	285-420	100 (25)
--------	---------	----------

Finger guard; touch-proof cover protects unused conductor entries

yellow	285-421	100 (25)
--------	---------	----------

Test plug adapter; 11.6 mm wide; for 4 mm Ø test plug; for 1.5 ... 16 mm² terminal blocks

gray	283-404	25
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Three-phase set; with 35 mm² high-current terminal blocks

	285-139	1
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Power tap; I_N 24 A; with 500 mm cable; for 16 mm² (283/783 Series) and 35 mm² (285/785 Series) rail-mount terminal blocks

gray	283-407	25
------	---------	----

Operating tool with a partially insulated shaft; type 3; (5.5 x 0.8) mm blade

	210-721	25 (1)
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Power tap; for 35 mm² high-current terminal blocks

Color	Item No.	Pack. Unit
gray	285-427	5

Accessories; item-specific

Strain relief plate; gray

1-pole	769-410	100 (25)
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Test plug; with 500 mm cable; 2 mm Ø; max. 42 V

red	210-136	50 (1)
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WMB marking card; white; 10 strips with 10 markers/card; for 5 ... 17.5 mm terminal block width

plain	793-501	5
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WMB marking card; white; 10 strips with 10 markers/card; 5 ... 5.2 mm stretchable

plain	793-5501	5
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① 1000 V = rated voltage

8 kV = rated impulse voltage
3 = pollution degree
(see Section 15)

② 800 V = rated voltage

8 kV = rated impulse voltage
3 = pollution degree
(see Section 15)

③ Terminal blocks with an Ex mark are suitable for Ex e II applications.

880 V, 101 A
1 jumper, 85 A
4 ... 5 jumpers, 75 A
(see Section 15)

Please observe the application notes:

Step-down jumpers, see page 297

Marking, from page 684

Approvals and corresponding ratings,
visit www.wago.com

Accessories; for high-current terminal blocks

Appropriate marking systems:
WMB/WMB Inline/Marking strips

Copper DIN-rail; per EN 60715; 35 x 15 mm; 2.3 mm thick; 2 m long

unslotted	210-198	10
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Marking strip; plain; 11 mm wide; 50 m reel

white	2009-110	1
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WMB marking card; white; 10 strips with 10 markers/card; for 5 ... 17.5 mm terminal block width

plain	793-501	5
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WMB marking card; white; 10 strips with 10 markers/card; 5 ... 5.2 mm stretchable

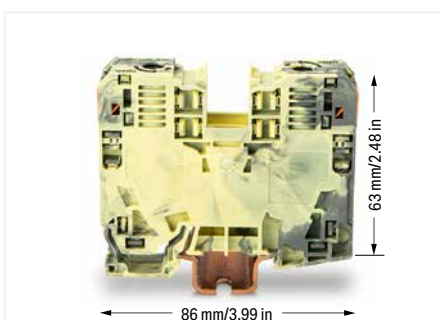
plain	793-5501	5
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Marker carrier; for POWER CAGE CLAMP 35/50/95 mm²; 10.4 mm wide

gray	285-442	25
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Screwless end stop; for DIN-35 rail; 14 mm wide

gray	249-197	10
------	---------	----



2-conductor through terminal block, dark gray/yellow (285-131), for ground connection without contact to the DIN-rail



Always push voltage tap (283-407) down into the terminal block until fully inserted!

High-Current Rail-Mount Terminal Blocks; 50 ... 185 mm²

285 Series

Description and Installation



Conductor termination – step 1:
Rotate the T-wrench counter-clockwise to the stop ①. Next, push in the orange locking tab. The clamp is locked open for hands-free wiring.



Conductor termination – step 2:
Insert a stripped conductor into the clamping unit until it hits backstop. Hold in this position.



Conductor termination – step 3:
A short counter-clockwise rotation ② releases the tab. When unlocked, the T-wrench rotates clockwise, securely clamping the conductor.

5



For the optimal clamping force:

- Bend conductor.
- Cut conductor to length (conductor end must be straight).
- Stripping a conductor.



Always observe the printed strip length!



Grounding foot:

Ground conductor terminal blocks (limited to max. 120 mm²/250 kcmil per EN 60947-7-2) must be snapped onto a 2.3 mm thick copper DIN-rail.



Protective warning marker may indicate:
Notice: Power is still on even after switching off the main switch!



Risk of injury!
Do not insert fingers in the conductor entry!



Yellow, detachable finger guards provide touch-proof safety by shielding jumper contact slots and/or unused conductor entries.



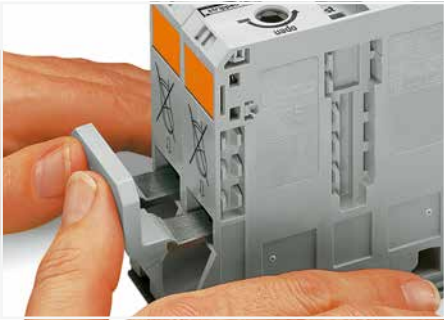
POWER CAGE CLAMP
terminates the following
copper conductors:
solid "s"



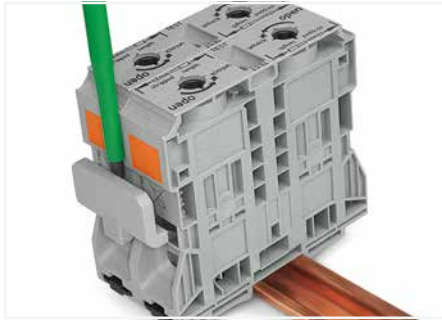
stranded "st"



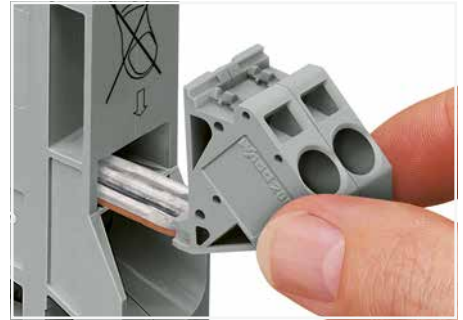
fine-stranded "f-st",
also with tinned
single strands



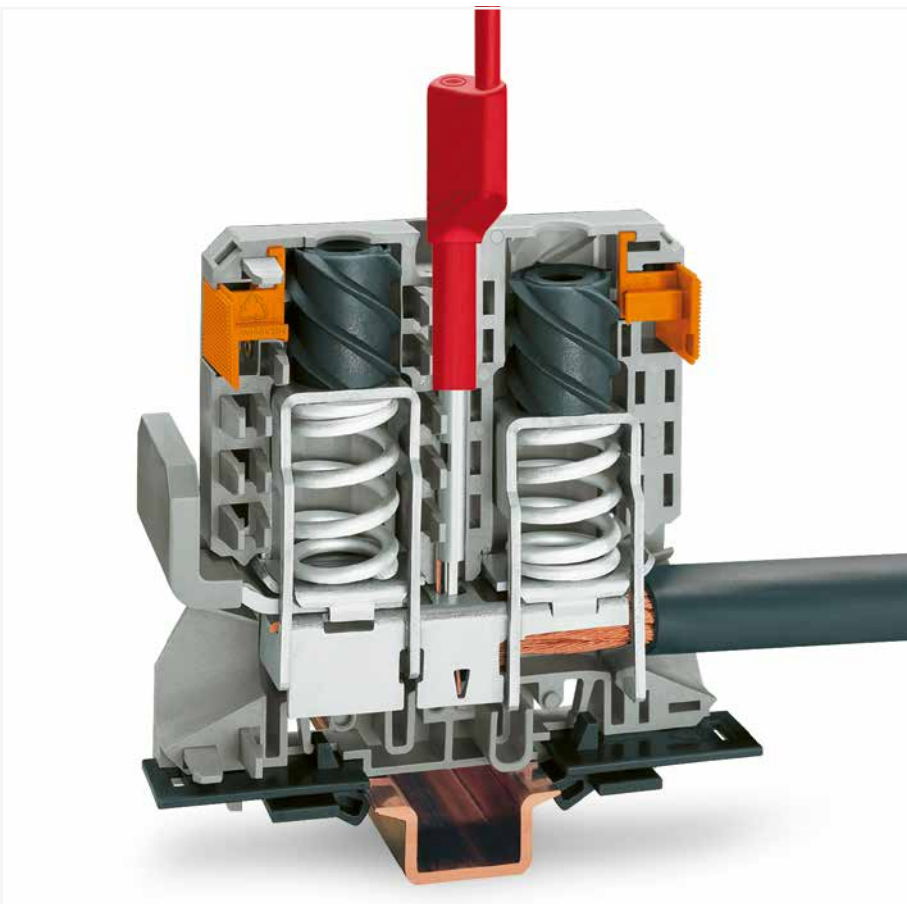
Commoning with an adjacent jumper: insert the jumper above the conductor entry hole – prior to conductor termination. The nominal cross-section remains unchanged.



Removing jumper via operating tool.



Reliably and easily tap directly into the power supply. Insert the unwired tap before opening the clamping unit.



Testing via touch-proof 4 mm Ø test plugs (not available from WAGO, but offered by industry suppliers such as, Multi-Contact Deutschland GmbH).



Testing
Voltage measurements can be performed (e.g., via 2-pole 206-707 Voltage Tester).



WMB markers or self-adhesive, printable marking strips can be accommodated on 35, 50 and 95 mm² high-current terminal blocks.



In addition to WMB markers, marking strips can be directly applied to 185 mm² (350 kcmil) high-current terminal blocks.



fine-stranded,
with ferrule
(gastight crimped)

High-Current Through Terminal Block, High-Current Ground Conductor Terminal Block

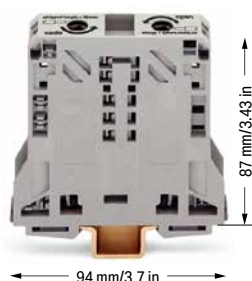
50 (70 "f-st") mm²; 285 Series

Technical Data

10 ... 50 (70 "f-st") mm ²	8 ... 1/0 AWG
1000 V / 8 kV / 3 ①	600 V, 150 A ②
I _N 150 A	600 V, 150 A ③
Terminal block width: 20 mm / 0.787 inch	
30 mm / 1.18 inch	

Technical Data

0.2 ... 6 mm ²	24 ... 10 AWG
1000 V / 8 kV / 3 ①	600 V, 30 A ②
I _N 41 A	600 V, 41 A ③
Module width: 16 mm / 0.63 inch	
12 ... 13 mm / 0.47 ... 0.51 inch	



2-conductor through terminal block; only for DIN 35 x 15 rail

Color	Item No.	Pack. Unit
gray	285-150	5
blue	285-154	5
light gray ②	285-950 ②	5
dark gray/yellow	285-151	5

2-conductor ground terminal block; only suitable for DIN 35 x 15 rail; 2.3 mm thick; copper

green-yellow	285-157	5
green-yellow ②	285-157/999-950 ②	5

Accessories; item-specific

Adjacent jumper; insulated; I_N 150 A, for 1 jumper; I_N 130 A, for 2 ... 4 jumpers

gray	285-450	100 (25)
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Protective warning marker; with a black high-voltage symbol

yellow	285-440	50 (25)
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Protective warning marker; with a black high-voltage symbol

yellow	285-449	25
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Finger guard; touch-proof cover protects unused conductor entries and jumper slots

yellow	285-441	100 (25)
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Three-phase set; with 50 mm² high-current terminal blocks

	285-159	1
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Copper DIN-rail; per EN 60715; 35 x 15 mm; 2.3 mm thick; 2 m long

unslotted	210-198	10
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Screwless end stop; for DIN-35 rail; 14 mm wide

gray	249-197	10
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T-wrench with a partially insulated shaft

	285-172	1
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Power tap; for 50 mm² high-current terminal blocks

Color	Item No.	Pack. Unit
gray	285-447	5

Accessories; item-specific

Protective warning marker; with black high-voltage symbol; for 5 terminal blocks

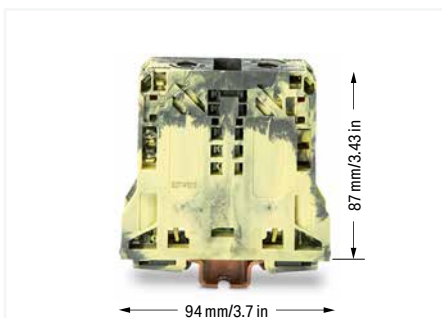
yellow	282-415	50 (25)
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WMB marking card; white; 10 strips with 10 markers/card; for 5 ... 17.5 mm terminal block width

plain	793-501	5
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WMB marking card; white; 10 strips with 10 markers/card; 5 ... 5.2 mm stretchable

plain	793-5501	5
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2-conductor through terminal block, dark gray/yellow (285-151), for ground connection without contact to the DIN-rail

① 1000 V = rated voltage

8 kV = rated impulse voltage

3 = pollution degree (see Section 15)

② Terminal blocks with an Ex mark are suitable for Ex e II applications.
880 V, 134 A (see Section 15)

Adjacent jumpers (285-450) can only be removed or inserted when the clamp is closed.

Please observe the application notes: Marking, from page 684

Approvals and corresponding ratings, visit www.wago.com

Accessories; for high-current terminal blocks

Appropriate marking systems:
WMB/WMB Inline/Marking strips

Marking strip; plain; 11 mm wide; 50 m reel

white	2009-110	1
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WMB marking card; white; 10 strips with 10 markers/card; for 5 ... 17.5 mm terminal block width

plain	793-501	5
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WMB marking card; white; 10 strips with 10 markers/card; 5 ... 5.2 mm stretchable

plain	793-5501	5
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Marker carrier; for POWER CAGE CLAMP 35/50/95 mm²; 10.4 mm wide

gray	285-442	25
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Marker carrier (285-442) for marking strip (2009-110) or 2 x WMB markers

High-Current Through Terminal Block; with Mounting Flanges

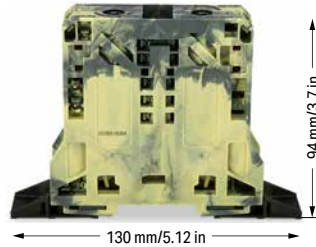
50 (70 "f-st") mm²; 285 Series

Technical Data

10 ... 50 (70 "f-st") mm ²	8 ... 1/0 AWG
1000 V / 8 kV / 3 ①	600 V, 150 A ②
I _N 150 A	600 V, 150 A ③
Terminal block width: 20 mm / 0.787 inch	
30 mm / 1.18 inch	

Technical Data

10 ... 50 (70 "f-st") mm ²	8 ... 1/0 AWG
1000 V / 8 kV / 3 ①	600 V, 150 A ②
I _N 150 A	600 V, 150 A ③
Terminal block width: 20 mm / 0.787 inch	
30 mm / 1.18 inch	



2-conductor through terminal block; with mounting flanges

Color	Item No.	Pack. Unit
gray	285-141	5
blue	285-144	5
light gray ②	285-143 ②	5

2-conductor through terminal block; with mounting flanges

Color	Item No.	Pack. Unit
dark gray/yellow	285-147	5
dark gray/yellow ②	285-147/999-950 ②	5

Accessories; for high-current terminal blocks

Appropriate marking systems: WMB/WMB Inline/Marking strips

Adjacent jumper; insulated; I_N 150 A, for 1 jumper; I_N 130 A, for 2 ... 4 jumpers

gray	285-450	100 (25)
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Marking strip; plain; 11 mm wide; 50 m reel

white	2009-110	1
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Block-to-block connector; for 50 mm² high-current terminal blocks

orange	285-448	50 (25)
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WMB marking card; white; 10 strips with 10 markers/card; for 5 ... 17.5 mm terminal block width

plain	793-501	5
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Protective warning marker; with a black high-voltage symbol

yellow	285-440	50 (25)
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WMB marking card; white; 10 strips with 10 markers/card; 5 ... 5.2 mm stretchable

plain	793-5501	5
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Protective warning marker; with a black high-voltage symbol

yellow	285-449	25
--------	---------	----

Marker carrier; for POWER CAGE CLAMP 35/50/95 mm²; 10.4 mm wide

gray	285-442	25
------	---------	----

Finger guard; touch-proof cover protects unused conductor entries and jumper slots

yellow	285-441	100 (25)
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Three-phase set; with 50 mm² high-current terminal blocks

	285-148	1
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Power tap; for 50 mm² high-current terminal blocks

gray	285-447	5
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T-wrench with a partially insulated shaft

	285-172	1
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① 1000 V = rated voltage
8 kV = rated impulse voltage
3 = pollution degree
(see Section 15)

② Terminal blocks with an Ex mark are suitable for Ex e II applications.
880 V, 134 A
(see Section 15)

Adjacent jumpers (285-450) can only be removed or inserted when the clamp is closed.

Please observe the application notes:
Marking, from page 684

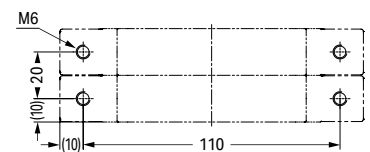
Approvals and corresponding ratings,
visit www.wago.com



Optionally, insert block-to-block connector (285-448) into housing slot.



Align and snap high-current, through terminal blocks together.



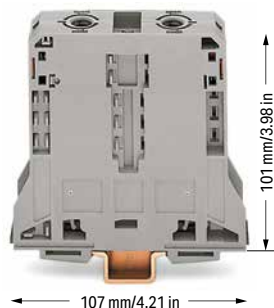
Dimensions (in mm):
Drill hole separation distance

High-Current Through Terminal Block, High-Current Ground Conductor Terminal Block

95 mm²; 285 Series

Technical Data

25 ... 95 mm ²	4 ... 4/0 AWG
1000 VAC/DC/1500 VDC/12 kV / 3	2 600 V, 200 A
I _N 232 A	1000 V, 210 A
Terminal block width: 25 mm / 0.984 inch	
35 mm / 1.38 inch	



Technical Data

0.2 ... 10 (16) mm ² 1	24 ... 8 AWG
1000 V / 8 kV / 3	600 V, 50 A
I _N 57 A	600 V, 57 A
Module width: 20 mm / 0.787 inch	
12 ... 13 mm / 0.47 ... 0.51 inch	



1 Power tap; for 95 mm² high-current terminal blocks
Max. conductor size: 16 mm²

2 1000 VAC/DC
1500 VDC = rated voltage
12 kV = rated impulse voltage
3 = pollution degree
(see Section 15)

3 1000 V = rated voltage
8 kV = rated impulse voltage
3 = pollution degree

4 Terminal blocks with an Ex mark are suitable for Ex e II applications.
25 ... 95 mm² / 4 ... 4/0 AWG
880 V, 211 A
1 jumper, 211 A
2 ... 4 jumpers, 175 A
35 ... 70 mm² / 2 ... 2/0 AWG
for ground conductor terminal blocks
(see Section 15)

Please observe the application notes:
Marking, from page 684

Approvals and corresponding ratings,
visit www.wago.com

Accessories; for high-current terminal blocks

Appropriate marking systems:
WMB/WMB Inline/Marking strips

Marking strip; plain; 11 mm wide; 50 m reel

white	2009-110	1
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WMB marking card; white; 10 strips with 10 markers/card;
for 5 ... 17.5 mm terminal block width

plain	793-501	5
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WMB marking card; white; 10 strips with 10 markers/card;
5 ... 5.2 mm stretchable

plain	793-5501	5
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Marker carrier; for POWER CAGE CLAMP 35/50/95 mm²;
10.4 mm wide

gray	285-442	25
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2-conductor through terminal block; only for DIN 35 x 15 rail

Color	Item No.	Pack. Unit
gray	285-195	5
blue	285-194	5
light gray	285-995 1	5
dark gray/yellow	285-191	5

2-conductor ground terminal block; only suitable for DIN 35 x 15 rail; 2.3 mm thick; copper

green-yellow	285-197	5
green-yellow	285-197/999-950 1	5

Power tap; for 95 mm² high-current terminal blocks

Color	Item No.	Pack. Unit
gray	285-407	5

Accessories; item-specific

Adjacent jumper; insulated; I_N 232 A, for 1 jumper;
I_N 192 A, for 2 ... 4 jumpers

gray	285-495	25
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Protective warning marker; with a black high-voltage symbol

yellow	285-170	50 (25)
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Protective warning marker; with a black high-voltage symbol

yellow	285-175	25
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Finger guard; touch-proof cover protects unused conductor entries and jumper slots

yellow	285-169	25
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Three-phase set; with 95 mm² high-current terminal blocks

285-199	1
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Copper DIN-rail; per EN 60715; 35 x 15 mm; 2.3 mm thick; 2 m long

unslotted	210-198	10
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Screwless end stop; for DIN-35 rail; 14 mm wide

gray	249-197	10
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T-wrench with a partially insulated shaft

285-172	1
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Accessories; item-specific

Protective warning marker; with black high-voltage symbol; for 5 terminal blocks

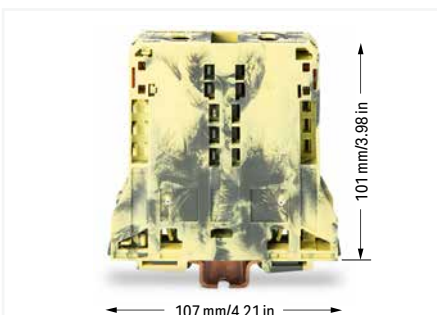
yellow	284-415	50 (25)
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WMB marking card; white; 10 strips with 10 markers/card; for 5 ... 17.5 mm terminal block width

plain	793-501	5
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WMB marking card; white; 10 strips with 10 markers/card; 5 ... 5.2 mm stretchable

plain	793-5501	5
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2-conductor through terminal block, dark gray/yellow (285-191), for ground connection without contact to the DIN-rail



Marker carrier (285-442) for marking strip (2009-110) or 2 x WMB markers

High-Current Through Terminal Block; with Mounting Flanges

95 mm²; 285 Series

Technical Data

25 ... 95 mm ²	4 ... 4/0 AWG
1000 V / 8 kV / 3 ①	600 V, 200 A ②
I _N 232 A	1000 V, 210 A ③
Terminal block width: 25 mm / 0.984 inch	
35 mm / 1.38 inch	

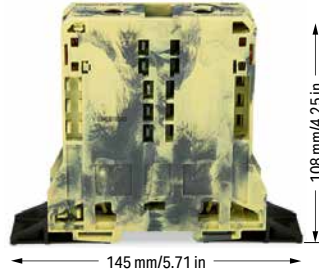


2-conductor through terminal block; with mounting flanges

Color	Item No.	Pack. Unit
gray	285-181	5
blue	285-184	5

Technical Data

25 ... 95 mm ²	4 ... 4/0 AWG
1000 V / 8 kV / 3 ①	600 V, 200 A ②
I _N 232 A	1000 V, 210 A ③
Terminal block width: 25 mm / 0.984 inch	
35 mm / 1.38 inch	



2-conductor through terminal block; with mounting flanges

Color	Item No.	Pack. Unit
dark gray/yellow	285-187	5

Accessories; for high-current terminal blocks

Appropriate marking systems: WMB/WMB Inline/Marking strips

Adjacent jumper; insulated; I_N 232 A, for 1 jumper; I_N 192 A, for 2 ... 4 jumpers

gray	285-495	25
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Block-to-block connector; for 95 mm² high-current terminal blocks

orange	285-168	50 (25)
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Protective warning marker; with a black high-voltage symbol

yellow	285-170	25
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Protective warning marker; with a black high-voltage symbol

yellow	285-175	25
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Finger guard; touch-proof cover protects unused conductor entries and jumper slots

yellow	285-169	25
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Three-phase set; with 95 mm² high-current terminal blocks

	285-188	1
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Power tap; for 95 mm² high-current terminal blocks

	285-407	5
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T-wrench with a partially insulated shaft

	285-172	1
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Marking strip; plain; 11 mm wide; 50 m reel

white	2009-110	1
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WMB marking card; white; 10 strips with 10 markers/card; for 5 ... 17.5 mm terminal block width

plain	793-501	5
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WMB marking card; white; 10 strips with 10 markers/card; 5 ... 5.2 mm stretchable

plain	793-5501	5
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Marker carrier; for POWER CAGE CLAMP 35/50/95 mm²; 10.4 mm wide

gray	285-442	25
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- ① 1000 V = rated voltage
8 kV = rated impulse voltage
3 = pollution degree
(see Section 15)

Please observe the application notes:
Marking, from page 684

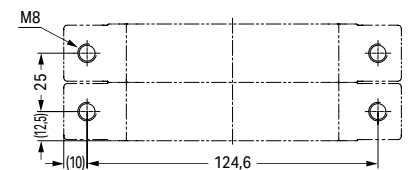
Approvals and corresponding ratings,
visit www.wago.com



Optionally, insert block-to-block connector (285-168) into housing slot.



Align and snap high-current, through terminal blocks together.



Dimensions (in mm):
Drill hole separation distance